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Wisconsin Department of Commerce

Evaluation # 200819-I (Replaces 200305-I)

**Safety & Buildings Division**
**201 West Washington Avenue**
**P.O. Box 2658**
**Madison, WI 53701-2658**

# Wisconsin Building Products Evaluation

| | |
|---|---|
| Material | Energy-Lok™ Insulation Panels and Liners |
| Manufacturer | Energy Panel Structures, Inc.<br>PO Box 238<br>Graettinger, IA 51342 |

## SCOPE OF EVALUATION

**GENERAL:** This report evaluates Energy-Lok brand insulation panels and liners manufactured by Energy Panel Structures have been evaluated as a nonstructural insulated wall and roof panel for use in combustible or noncombustible 0-hour rated construction and in refrigerated facilities and freezer warehouses.

The **IBC** requirements below in accordance with the current **Wisconsin Amended ICC Code:**

- **Foam Plastic Core Material:** The Energy-Lok brand insulation panels and liners was evaluated under the foam plastic requirements in accordance with **ss. IBC 2603.1**, **2603.2**, **2603.3**.

- **Nonstructural Wall and Ceiling Panel:** The Energy-Lok brand insulation panels and liners was evaluated as a nonstructural insulated wall and ceiling panel used in refrigerated facilities and freezer warehouses in accordance with **ss. IBC 2603.4.1.2**, **2603.4.1.3**, **2603.4.1.4**, and **2603.5**.

The structural performance and thermal transmission properties of the panels are outside the scope of this evaluation and are subject to specific evaluation and approval by the building plan reviewer.

## DESCRIPTION AND USE

Enegy-Lok brand insulation panels and room liners are sandwich panels having a core of extruded polystyrene or expanded polystyrene with facings of 26 gauge galvanized steel or 0.032-inch thick aluminum, laminated to both sides with a thermosetting adhesive. The room liners consist of the steel or aluminum facing on one side with 0.01-inch thick aluminum on the other side which is installed against a concrete or masonry wall in a liner application. The panels and liners are 46 to 48 inches in width with thickness up to 10 inches.

**TESTS AND RESULTS**

The tests and results listed below cover the current **Wisconsin Amended 2006 IBC Code** requirements:

Full-scale corner tests have been conducted with automatic fire sprinklers with satisfactory results.

An 8-foot room fire test in accordance with UBC standard 26-4 was conducted with the full 10-inch thickness without automatic fire sprinklers with satisfactory results.

The test data is on file with the department.

**LIMITATIONS OF APPROVAL**

The **IBC** limitations below are in accordance with the current **Wisconsin Amended IBC 2006 Code:**

The insulation and liner panels are approved for a maximum interior height of 50 feet without a thermal barrier in NC-0 construction and in refrigerated facilities when provided with an automatic fire sprinkler system as required by **ss. IBC 2603.4.1.4.**

The panels may be used to a maximum interior height of 12 feet without a thermal barrier and without an automatic sprinkler system normally required under **s. IBC 2603.5.5.**

The insulation and liner panels may be used in freezer warehouses in accordance with **s. IBC 2603.4.1.2** and **s. IBC 2603.5.**

**NOTES:**
1. For refrigerated buildings only, building heights exceeding 30 feet, and panels up to 10 inches thick maximum, thermal barriers on both sides of the panel shall be required for proper protection.
2. Other sections of the code may require an automatic sprinkler system based on limitations of occupancy, area, height, etc., or may specify stricter height limitations.

Installation shall be in accordance with the Omega Point Laboratories test assembly, the manufacturer's instructions and this evaluation. In the event of conflicts, the more strict requirements shall govern.

This approval will be valid through December 31, 2013, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

**DISCLAIMER**

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date:
Approval Date: January 30, 2009 By: _____

Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau